ABSTRACT

Methods and apparatus for determining a remainder value are disclosed. The methods and apparatus extracts a residuary subset bitfield value from a binary value that is calculated using a scaled approximate reciprocal value that is associated with a compound exponent scaling value. The residuary subset bitfield value is part of a range of contiguous bits that is associated with upper and lower boundary bit-position values that are part of the compound exponent scaling value. The methods and apparatus determine the remainder value based on the residuary subset bitfield value.